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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/998,777	12/03/2001	Bowie G. Keefer	T8465108US	7104

26912 7590 04/24/2002

GOWLING LAFLEUR HENDERSON LLP
COMMERCE COURT WEST, SUITE 4900
TORONTO, ON M5L 1J3
CANADA

EXAMINER

LAWRENCE JR, FRANK M

ART UNIT	PAPER NUMBER
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1724

5

DATE MAILED: 04/24/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

AG-5

Office Action Summary	Application No.		Applicant(s)	
	09/998,777		KEEFER, BOWIE G.	
	Examiner		Art Unit	
	Frank M. Lawrence		1724	

-- Th MAILING DATE of this communication appears on the cover sheet with the corresponding address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☒ Claim(s) 2-9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☒ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s): _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>4</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Canada on June 6, 1999. It is noted, however, that applicant has not filed a certified copy of the Canadian application as required by 35 U.S.C. 119(b).

Oath/Declaration

2. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

It refers to the single listed inventor as a "joint" inventor rather than a "sole" inventor.

Specification

3. The disclosure is objected to because of the following informalities: In line 19 of page 5, "Fig. 4" should be changed to "Fig. 1".

Appropriate correction is required.

4. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by the international application (WO 97/39821; figure 1; p. 22, line 9 to p. 24, line 3).

7. WO '821 teaches a gas separation system for extracting gas fractions from a gas mixture, comprising a stator having a stator valve surface and a plurality of function compartments, a rotor coupled to the stator and having a valve surface in communication with the stator valve surface, a plurality of flow paths for receiving adsorbent material, apertures in the rotor valve surface for exposing the flow paths to the function compartments, and a surge compartment that can be disposed between compression equipment and the stator for reducing pressure variations in the function compartments.

Allowable Subject Matter

8. Claims 2-9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The following is a statement of reasons for the indication of allowable subject matter:

The stator and rotor adsorbent system as recited in claim 1 in combination with either a primary surge adsorber connected to one of the function compartments and compression machinery, and a secondary surge chamber connected to another function compartment with a flow restrictor in

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communication with the primary and secondary surge chambers for facilitating pressure letdown between the compression machinery and the other function compartment as recited in claim 2, or wherein the surge absorber comprises a plurality of parallel flow restriction channels being coupled to a respective one of the function compartments and having a respective channel length for maintaining each compartment at one of a plurality of discrete pressure levels as recited in claim 6, or wherein the surge absorber comprises a surge chamber continually disposed in communication with a predetermined minimum number of the flow paths that define an adsorbent volume with the surge absorber having a volume at least equal to the adsorbent volume, as recited in claim 8, is not taught, disclosed or suggested in a single reference or combination of references in the prior art of record. The closest prior art, WO '821 discloses a stator/rotor adsorbent system using a surge absorber between compression machinery and function compartments but fails to disclose the use of several surge chambers connected to different compartments with a flow restrictor, a surge absorber comprising parallel restriction channels connected to the compartments for maintaining a plurality of pressure levels, or a surge absorber with a preferred volume relative to the volume of the adsorbent.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The references to Keefer (4,968,329) and Tedford, Jr. (4,449,990) each disclose the use of surge absorbers with flow restrictor valves to maintain constant pressure in gas exiting an adsorbent system.


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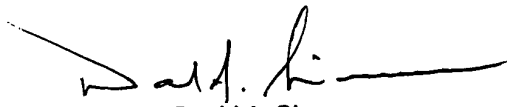
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frank M. Lawrence whose telephone number is 703-305-0585.

The examiner can normally be reached on Mon-Thurs 7:30-5:00; alternate Fridays 7:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Simmons can be reached on 703-308-1972. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0651.

fl 
April 18, 2002


David A. Simmons
Supervisory Patent Examiner
Technology Center 1700